



**DEPARTMENT OF HOMELAND SECURITY
U.S. CUSTOMS AND BORDER PROTECTION
NOTICE OF ISSUANCE OF FINAL DETERMINATION CONCERNING
SOLAR MODULES**

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of final determination.

SUMMARY: This document provides notice that U.S. Customs and Border Protection (“CBP”) has issued a final determination concerning the country of origin of certain solar modules manufactured by Hanwha USA. Based upon the facts presented, CBP has concluded that the country of origin of the solar modules is Malaysia when Malaysian solar cells are used or Korea when Korean solar cells are used for purposes of U.S. Government procurement.

DATE: The final determination was issued on September 16, 2015. A copy of the final determination is attached. Any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of this final determination within [insert 30 days from date of publication in the Federal Register].

FOR FURTHER INFORMATION CONTACT: Ross Cunningham, Valuation and Special Programs Branch, Regulations and Rulings, Office of International Trade (202) 325-0034.

SUPPLEMENTARY INFORMATION: Notice is hereby given that on September 16, 2015 pursuant to subpart B of Part 177, U.S. Customs and Border Protection Regulations (19 CFR Part 177, subpart B), CBP issued a final determination concerning the country of origin of certain solar modules manufactured by Hanwha USA, which may be offered to the U.S. Government under an undesignated government procurement contract. This final determination, HQ H261693, was issued under procedures set forth at 19 CFR Part 177, subpart B, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-18). In the final determination, CBP concluded that the processing in Poland or Korea does not result in a substantial transformation.

Therefore, the country of origin of the solar modules is Malaysia or Korea, where the solar cells are produced, for purposes of U.S. Government procurement.

Section 177.29, CBP Regulations (19 CFR 177.29), provides that a notice of final determination shall be published in the **Federal Register** within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 CFR 177.30), provides that any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the **Federal Register**.

Dated: September 16, 2015

Harold Singer
Acting Executive Director
Regulations and Rulings
Office of International Trade

Attachment

HQ H261693

September 16, 2015

OT:RR:CTF:VS H261693 RMC

CATEGORY: Country of Origin

Chip Purcell
Cooley LLP
1299 Pennsylvania Ave. NW
Suite 700
Washington, DC 20004-2400

Re: U.S. Government Procurement; Country of Origin of Solar Modules; Substantial Transformation

Dear Mr. Purcell:

This is in response to your letter dated January 12, 2015, requesting a final determination on behalf of Hanwha USA pursuant to Subpart B of Part 177 of the U.S. Customs and Border Protection (“CBP”) Regulations (19 C.F.R. Part 177). Under these regulations, which implement Title III of the Trade Agreements Act of 1979 (“TAA”), as amended (19 U.S.C. § 2511 *et seq.*), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain “Buy American” restrictions in U.S. law or for products offered for sale to the U.S. Government. This final determination concerns the country of origin of certain solar modules. As a U.S. importer, Hanwha USA is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination.

FACTS:

Hanwha USA acts as the U.S. wholesaler and distributor of solar modules manufactured by Hanwha GmbH in Korea and Poland. The solar modules convert sunlight into energy and are generally incorporated into a system that includes other components such as inverters, racking systems, cable management systems, and monitoring systems. The systems are installed at facilities in order to generate electricity.

Hanwha USA provided the following information on each component that goes into a finished product.

1. Solar Cells – Product of Malaysia or Korea
2. Glass – Product of China
3. Frames – Product of China or Belgium
4. Junction Box, Cable, and Connector – Product of China or Czech Republic
5. Back Sheets – Product of China or Germany
6. EVA – Product of Korea or Japan
7. Interconnect Ribbon – Product of Korea for solar panels assembled in Korea; product of Austria or Germany for solar panels assembled in Poland.

The solar cells represent slightly more than half of the cost of the finished solar modules. Hanwha states that the components are assembled into finished products either in Korea or Poland in the following nine-step process:

1. Incoming Inspection: Each component undergoes an incoming quality inspection and testing based on standard operating procedures.
2. Cell and String Soldering: Individual solar cells are soldered together using tin-coated copper ribbons to form cell strings.

3. Matrix Preparation and Bus Bar Soldering: A robot places the cell strings on glass panels and workers complete the matrix layup.
4. Lamination: After inspection and electroluminescence testing, the matrix layups are transferred into vacuum laminators.
5. Trimming and Framing: Excess material is removed from the edge of the laminate and the aluminum frame is press-fit together.
6. Junction Box Installation: The junction box is attached to the back of the solar module using silicone glue.
7. Electrical Test: Each solar module undergoes a high-potential test at 6,000 volts, and electroluminescence test to inspect for micro-cracks and other defects, a flash test to measure performance, and a grounding test.
8. Final Inspection, Sorting, and Packaging: The junction box lids are applied and the solar modules are allowed to cure, followed by a final visual inspection of all solar modules.
9. Outgoing Quality Inspection: A sample of solar modules is removed after packaging for a final quality check.

Hanwha USA notes that this process takes “less than one day” to complete. Hanwha USA also states that it conducts research and development in Korea and Poland related to the manufacturing process and the development of methods and systems to ensure stable production.

ISSUE:

Whether the manufacturing process described above “substantially transforms” the solar-module components such that the country of origin of the finished product is either Korea or Poland for U.S. Government procurement purposes.

LAW AND ANALYSIS:

Pursuant to Subpart B of Part 177, 19 C.F.R. § 177.21 *et seq.*, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 *et seq.*), CBP issues country-of-origin advisory rulings and final determinations as to whether an article is a product of a designated country for the purpose of granting waivers of certain “Buy American” restrictions on U.S. Government procurement.

In rendering final determinations for purposes of U.S. Government procurement, CBP applies the provisions of Subpart B of Part 177 consistent with the Federal Procurement Regulations. *See* 19 C.F.R. § 177.21. The rule of origin applicable in this context states that “[a]n article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct

from that of the article or articles from which it was so transformed.” 19 U.S.C. § 2518(4)(B); 19 C.F.R. § 177.22(a). Here, Hanwha cannot satisfy paragraph (i) of C.F.R. § 177.22(a), so the issue is whether the solar-module components are “substantially transformed” in Hanwha’s manufacturing processes in the Republic of Korea or Poland, as the case may be.

In order to determine whether a substantial transformation occurs when components of various origins are assembled to form completed articles, CBP considers the totality of the circumstances and makes its decisions on a case-by-case basis. The country of origin of the article’s components, the extent of the processing that occurs within a given country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. CBP also considers resources expended on product design and development, the extent and nature of post-assembly inspection procedures, and the worker skill required during the actual manufacturing process; however, no one factor is determinative.

A substantial transformation will not result from a minor manufacturing or combining process that leaves the identity of the article intact. See *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (1940); and *National Hand Tool Corp. v. United States*, 989 F.2d 1201 (Fed. Cir. 1992). The Court of International Trade has applied the “essence test” to determine whether the identity of an article is changed through assembly or processing. For example in *Uniroyal, Inc. v. United States*, 3 CIT 220, 225, 542 F. Supp. 1026, 1030 (1982), *aff’d* 702 F.2d 1022 (Fed. Cir. 1983), the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus were not substantially transformed into a product of the United States. Similarly, in *National Juice Prods. Ass’n v. United States*, 10 CIT 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

In HQ H095409, dated Sept. 29, 2010, a U.S. manufacturer produced finished panels in California. Forty three percent of the cost content of the parts originated from the United States and all research and development took place in California. Key to our finding that a substantial transformation had taken place was the manufacturing process of the solar cells themselves. This process—which involved depositing thin films of chemicals on the inside of glass tubes—took five of the six and a half days it took to manufacture the finished solar panels. We found that turning bare glass tubes into functional solar cells in the United States constituted making a product with a new name, character, and use such that a substantial transformation had occurred.

Here, Hanwha’s assembly processes fall short of those described in H095409. For one, Hanwha’s assembly processes take less than a day, whereas those in H095409 took more than six. Moreover, although Hanwha conducts research and development in Korea and Poland, it is focused on the manufacturing process, not on product design and development.

In the scenario where Malaysian solar cells are used, almost none of the parts in the finished panels come from either Korea or Poland, the two countries where the panels are assembled.

Unlike H095409, which involved a 43% cost content of the country of assembly, here, where Malaysian solar cells are used, the cost content is at most 8.6% Korean for the panels assembled in Korea and 0% Polish for the panels assembled in Poland. Most importantly, however, the solar cells themselves are produced in Malaysia. As noted above, the complex manufacturing process of the solar cells themselves was key to our finding that a substantial transformation had occurred in H095409. Turning glass tubes into functioning solar cells resulted in a product with a new name, character, and use. Here, assembling solar cells into finished solar panels does not. Rather, we find that the solar cells impart the essential character of the solar panels. Therefore, where Malaysian solar cells are used, the country of origin for government-procurement purposes is Malaysia.

Similarly, in the scenario where Korean solar cells are used, the country of origin for government-procurement purposes is Korea.

HOLDING:

Based on the facts of this case, the solar panels' country of origin for U.S. Government procurement is Malaysia when Malaysian solar cells are used and Korea when Korean solar cells are used.

Sincerely,

Harold Singer, Acting Executive Director
Regulations & Rulings
Office of International Trade

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